

REMARKS

Claims 1-15 were pending in the application. Claims 1-15 have been amended to correct minor errors, improve antecedent basis, clarify the claims, place the claims in more typical U.S. format, and preserve the proper relationship between claim elements (as disclosed and explained in the specification). Claims 16-19 have been added. Thus, claims 1-19 are pending for reconsideration at this time.

Drawings

The drawings are objected because Fig. 1 is not labeled "Prior Art." Fig. 1 has been amended, and a corrected version is attached hereto.

Claim Rejections

Claims 1-5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,440,396 to Markus et al. (hereinafter "Markus") in view of what is commonly known in the art (hereinafter "CKA"). Claims 6 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Markus in view of U.S. Patent No. 4,730,190 to Win et al. (hereinafter "Win"). Applicant respectfully traverses these rejections for at least the following reasons.

Independent claim 1 recites at least one imaging device configured to create a three-dimensional map of the object. The Office Action on page 2 asserts that Markus discloses "imaging 35 and display 38 devices for creating a three-dimensional image...". Applicants respectfully disagree. Markus discloses a comparator for examining, inspecting, and calibrating component parts, including a video imaging system and display and a graphic line image generator for superimposing on the video display graphic images arranged to display predetermined dimensional ranges related to the component part. (Abstract.) Fig. 7 shows a video display according to Markus. Markus does not teach, suggest, or disclose three-dimensional images or maps, or at least one imaging device configured to create a three-dimensional map of the object. Neither Win nor CKA (as disclosed in section B on page 3 of the Office Action) cures the deficiencies of Markus.

Further, claim 1 recites a mapping apparatus configured to substantially match a virtual shape to the three-dimensional map of the object, wherein the measurement apparatus is adapted to determine from the virtual shape at least one parameter of the object. A benefit to this feature is that the measured parameter need not be determined directly from the three-dimensional map, which may be relatively complex; rather, the measured parameter may be determined from a virtual shape that is substantially matched (e.g., very similar, but less complex) to the three-dimensional map. In sharp contrast, Markus discloses superimposing a graphic line image, the line image containing dimensional information, onto a video image of the component part to be measured. At best, a user may move the vertical and horizontal lines 114, 120 (as in Fig. 7) within video image 104 using data entry device 64 (as in Fig. 1). However, Markus does not teach, suggest, or disclose a mapping apparatus configured to substantially match a virtual shape to the three-dimensional map of the object to be measured. Again, neither Win nor CKA cures the deficiencies of Markus.

Therefore, claim 1, and all claims dependent therefrom, are believed to be patentable over the cited prior art. Withdrawal of the rejections is respectfully requested. Independent claims 6, 7, 11, and 15 contain similar patentable limitations. Thus, claims 6, 7, 11, and 15, and all claims dependent therefrom, are believed to be patentable over the cited prior art. Withdrawal of the rejections is respectfully requested.

Further, independent claims 6 and 15 contain additional patentable limitations. For example, claim 6 recites at least one calculation device configured to calculate an estimate of materials required to cover the object, and claim 15 recites a calculation apparatus configured to estimate from the matched shape the quantity of chosen material required to cover the object. Markus, which is directed at an entirely different field than the present invention, does not teach, suggest, or disclose these limitations. CKA does not cure the deficiencies of Markus. Regarding Win, the Office Action asserts on page 4 that Win "discloses a calculation device... to determine at least one parameter of said object...". However, Win does not disclose, nor does the Office Action assert that Win discloses, at least one calculation device configured to calculate an estimate of materials required to cover the object. The materials may comprise, e.g., paint (as in new claim 17). Thus, Win does not cure the deficiencies of Markus. Therefore, claims 6 and 15, and all claims dependent therefrom, are believed to be

patentable over the cited prior art. Withdrawal of the rejections is respectfully requested.

Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Date

11/19/03

HEWLETT-PACKARD COMPANY

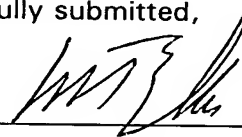
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Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400

Respectfully submitted,

By



William T. Ellis
Attorney for Applicant
Registration No. 26,874